

## **ABSTRACT OF THE DISCLOSURE**

An enhanced and improved diamond circular saw blade of an invention is disclosed. The invention includes welding and jointing of the periphery of a circular steel blade having an axle bore and a plurality of arc-shaped copper alloy metal-sheets.

5 Each arc-shaped copper alloy metal-sheet includes a plurality of openings, which provide the space required to accommodate a plurality of diamond particles. The width of an opening is somewhat wider than the diameter of an individual diamond particle. When the diamond particles are placed inside each opening of the copper alloy metal-sheets, a pair of molds is used to compress the top and the bottom of a  
10 plurality of metal teeth between adjacent openings simultaneously. By compressing this pair of molds, the metal teeth between adjacent openings are deformed, so as to squeeze along the direction of these openings and to enclose and hold the diamond particles. As a result, the surface is of an indentation-shaped saw plate. Therefore, an un-deformed diamond circular saw blade with high  
15 performance in rapid cutting is reached, so that not only is the production cost greatly reduced, but also the structure and manufacturing processes thereof are simplified.